Forward Observer PC Simulator Version 2.0

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FOPCSIM Outline

- Background
- Current systems
- FOPCSIM version 1.0
- Version 2.0
- Contact Info

Background

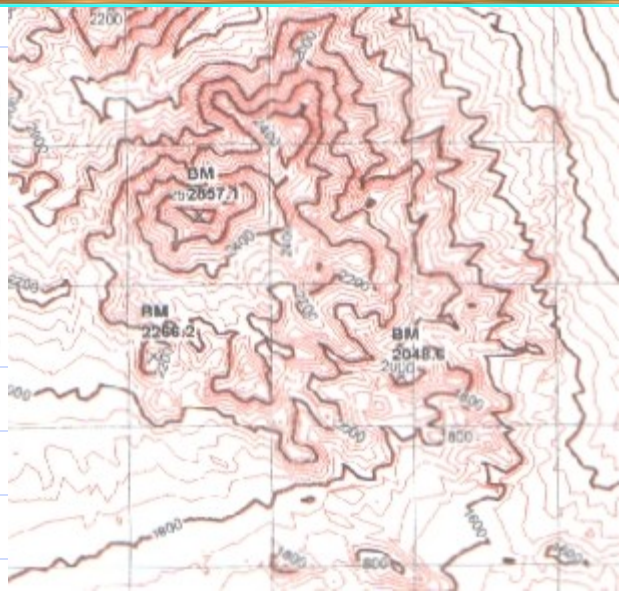
- Who needs to know how to Call for Fire? Everyone!
- Marine Officers
  - All Lts – Learn at TBS, Quantico
  - Artillery (0802) Lt's – More at Ft. Sill
- Marine Enlisted
  - Fire Support Man (0861)
  - 4 weeks @ Ft Sill, OK
  - 3 weeks EWTGPAC Coronado, CA

Current Systems

- TSFO (Training Set, Fire Observation)
  - TBS, I MEF SimCenter, other FMF locations
- FOTS (Forward Observer Training System)
  - EWTGPAC
  - POC: **John.Bilbruck@navy.mil**
- ISMT-E (Indoor Simulated Marksmanship Trainer-Enhanced)
  - EWTGPAC, other FMF locations
  - http://www.fatsinc.com/html/military/2.2.htm
- GuardFist II
  - Ft Sill (Both officer and enlisted)
  - http://www.fidelitytech.com/guard.html

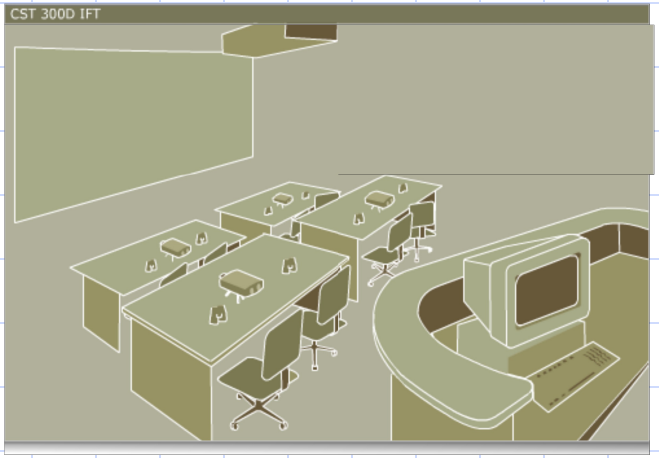
Forward Observer Training System (FOTS)

- Voice activated intelligent tutor reduces instructor hands-on requirements
- System interface allows creation & modification of scenarios to provide non-redundant training events
- True terrain association for the visual scene w/ three selectable battle terrains and corresponding non-geospecific maps that are WGS-84 & MGRS compliant
  - Twenty-nine palms
  - Camp Pendleton
- COTS PC-based system: same day 4-hour 5x10 parts and labor on-site response
- Scalable & Interoperable Architecture to meet training need



ISMT – E

Indoor Simulated Marksmanship Trainer - Enhanced



Various systems found throughout the USMC

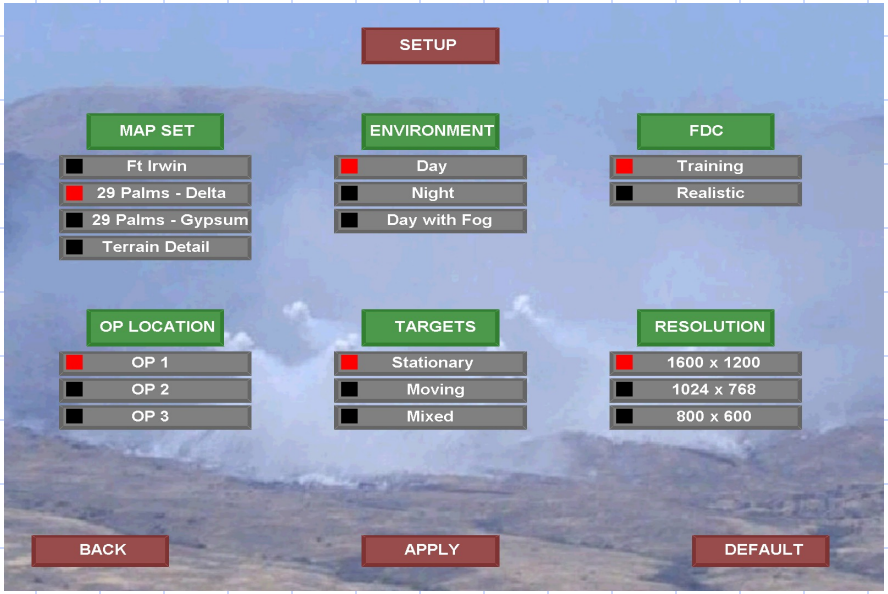
Guardfist II

- 2 - each 3-D realistic visual environments
- Realistic 3-D target models
- 3-D audio effects such as vehicle sounds, shell bursts
- Environmental station options include: daylight, visibility/fog/haze, wind direction and speed, rain, snow
- Touch screen user interface displays
- Remote simulation
- Fixed and moving targets
- Intelligent target behaviors
- Record/Replay and After Action Review (AAR)
- Supports multiple gun batteries
- Interfaces with tactical communication devices
- Incorporates simulated and virtual military equipment
- Incorporates all terrain early used U.S. Army gunnery patterns
- Integral portable AAR Control and Instructor

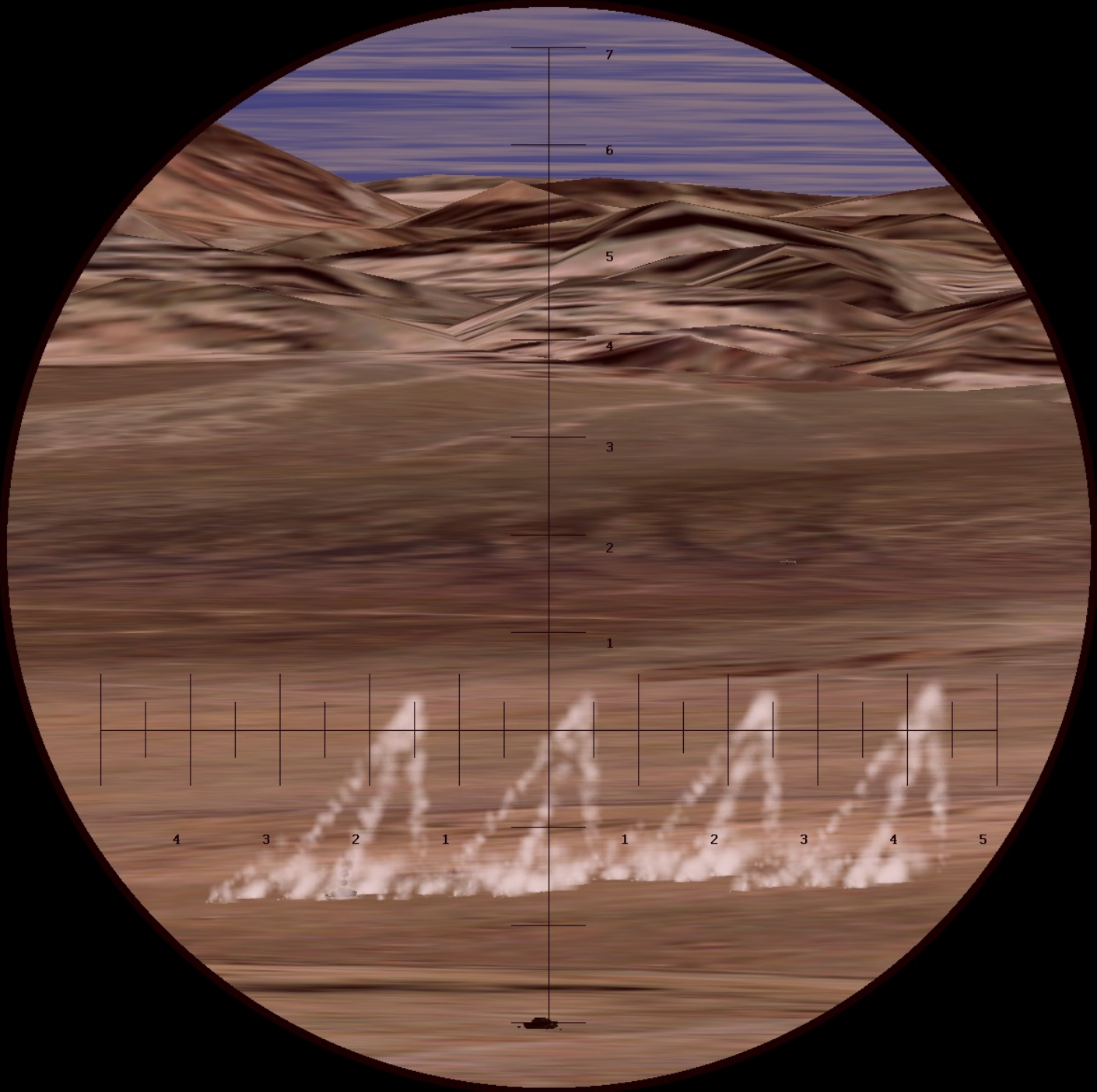
- Multiple Training Modes:
- Stand-alone - Trains FDC
- Interactive - Trains Fist and Fire Direction Center (FDC) personnel
- FIST Closed Loop - Integrates entire artillery team: FDC, FIST, Observer and Guns
- Trains critical call-for-fire and adjustments, such as planned target, final protective fire, transfer fire, simultaneous engagement of multiple targets, and threat target shift
- Fire Suppression Includes: HE, Smoke, WP, Parley, HE Shift, HE Quick
- User-friendly interface facilitates data entry for location, data, and range/deflection/height corrections
- Trains low- and high-angle fire
- Desired effects and ammunition, central, and suppressed are also aided by visual and audio effects

FOPCSIM ver. 1.0

- Stand alone, PC based system
- Written in C++
- Distributed Application
  - Developed using VEGA




FIX FOM1
11S UTM/UPS
587574 e 3801660n
EL + 0811
1 ON
2
3
FO: End of Mission, over
BTRY: End of Mission, out


7
6
5
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3
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4 3 2 1 1 2 3 4 5

Why Version 2.0?

- Complementary to existing systems
  - Replace TSFO
- Open Source- Using P-51
  - Avoid run time license $$$
  - Unlimited distribution (Every FO, Lt)
- Improved Networking Capability / Interoperability
  - HLA compliant: DVTE compatible
  - AFATDS connectivity
- Task Trainer → Team Trainer

Version 2.0 cont…

- Planned Experimental Study:
  - I MEF SimCenter, Camp Pendleton
  - LT's @ TBS, Quantico VA
- Timeline
  - Prototype: Jan 05
  - Experimentation: May 05
  - Thesis Completion: July 05
- Follow – on support

Contact Info

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http://www.nps.navy.mil/cs/Research/vissim/